

SALEM - Immanuel Lutheran College (2010-2011)**S.7 Chemistry Teaching Schedule**

Teachers: Mr Aman Wong C. M.

Textbooks: New Way Chemistry for Hong Kong A-level Book 1 (3rd Edition), *Y.C.Wong & C.T. Wong*, Manhattan, 2005
New Way Chemistry for Hong Kong A-level Book 2 (3rd Edition), *Y.C.Wong & C.T. Wong*, Manhattan, 2005
New Way Chemistry for Hong Kong A-level Book 3 (3rd Edition), *Y.C.Wong & C.T. Wong*, Manhattan, 2006
New Way Chemistry for Hong Kong A-level Book 4 (3rd Edition), *Y.C.Wong & C.T. Wong*, Manhattan, 2006

Reference Books: Modern Physical Chemistry, *Liptrot, Thompson & Wallser*, E.L.B.S., 1982
Organic Chemistry (5th Edition), *Morrison and Boyd*, Allyn and Bacon, 1987
Principle of Instrumental Analysis (4th Edition), *Skoog/Leary*, Saunders HBJ, 1992
Guidelines for Systematic Chemistry Nomenclature (Second Edition), HKEA, HKEA

Reading/IT Element: <http://www.ilc.edu.hk/SubjectWeb/ChemWeb/index.htm>

Date/Cycle	No. of Periods	Topics/Contents	Teaching Aids/ Experiments	Tests/Assignments
02/09/10 (1)	2	32.1 Introduction to Carboxylic Acids	Keynote	
		32.3 Physical properties of carboxylic acids		
	2	32.4 Preparations of carboxylic acids		
	2	32.5 Reactions of Carboxylic Acids		
	2	32.6 Reactions of the Derivatives of Carboxylic Acids		
	3			
10/09/10 (2)	2	34.1 Introduction to Structural Determination of Organic Compounds	Power-point from Manhattan	
		34.2 Isolation and Purification of Organic Compounds		
		34.3 Tests for Purity		
	2	34.4 Qualitative Analysis of Elements in an Organic Compound		
		34.5 Determination of Empirical Formula and Molecular Formula from Analytical Data		
	2	34.6 Structural Information from Physical Properties		

	2 3	34.7 Structural information from Chemical Properties Experiment 1	Extraction of the Active Ingredient from Aspirin Tablets	TAS Report
20/09/10 (3)	2 2 2 2 3	34.8 Use of Infra-red Spectroscopy in the Identification of Functional Groups 34.9 Use of Mass Spectra to Obtain Structural Information Experiment 2	Power-point from Manhattan Rates of Hydrolysis of some Halogeno-compounds	TAS Report
30/09/10 (4)	2 2 2 2 3	33.1 Organic Synthesis 33.8 Auto-oxidation of Fats and Oils 35.1 Introduction to Polymers 35.2 Naturally Occurring Polymers 35.3 Synthetic Polymers Experiment 3	Power-point from Manhattan (http://www.wikipedia.org) Preparation of 1-Bromobutane from Butan-1-ol	TAS Report
11/10/10 (5)	2 2 2 2 3	35.3 Synthetic Polymers (con't.) 35.4 Effect of Structure on Properties of Polymers Experiment 4	Power-point from Manhattan (http://www.wikipedia.org) Synthesis of an Azo Dye – the Coupling Reaction of Benzenediazonium ion with Naphthalene-2-ol	TAS Report
19/10/10 (6)	2 2 2 2	36.1 Introduction to Drugs 36.2 Development of Aspirin and cis-Platin 36.3 Key Stages of Drug Development 36.4 Over-the-Counter Drugs and Prescription Drugs 36.5 Narcotics and their Adverse Effects	Power-point from Manhattan (http://www.wikipedia.org)	

	3	36.6 Stimulants and their Adverse Effects Experiment 5	An Investigation of the Oxidation States of Vanadium	TAS Report
02/11/10 (7)	2 2 2 2 3	37.1 Concepts of Green Chemistry 37.2 Some Green Chemistry Practices 38.1 The Periodic Table 38.2 Periodic Variation in Physical Properties of Elements 39.1 Bonding of the Oxides of Periods 2 and 3 Elements Experiment 6	Power-point from Manhattan (http://www.wikipedia.org) EDTA Titration: Calcium in Calcium Supplements	Uniform Test Organic Chemistry TAS Report
10/11/10 (8)	2 2 2 2 3	39.2 Behavior of Oxides of Periods 2 and 3 Elements in Water, Dilute Acids and Dilute Alkalis 40.1 Characteristic Properties of the s-Block Elements 40.2 Variation in Properties of the s-Block Elements 40.3 Variation in Properties of the Compounds of the s-Block Elements Experiment 7	Power-point from Manhattan Qualitative Analysis I	TAS Report
18/11/10 (9)	2 2 2 2 3	41.1 Characteristic Properties of the Halogens 41.2 Variation in Properties of the Halogens 41.3 Comparative Study of the Reactions of Halide Ions 41.4 Acidic Properties of Hydrogen Halides and the Anomalous Behavior Hydrogen Fluoride Experiment 8	Power-point from Manhattan Qualitative Analysis II	TAS Report

29/11/10 (10)	2 2 2 2 3	42.1 Introduction to Group IV Elements 42.2 Characteristic Properties of the Group IV Elements 42.3 Composition of Chlorides and Oxides of the Group IV Elements 42.4 Silicon and Silicates 43.1 Introduction to d-Blocks 43.2 General Features of the d-Block Elements from Sc to Zn 43.3 Characteristic Properties of the d-Block Elements and their Compounds	Power-point from Manhattan (http://www.wikipedia.org)	
07/12/10 (11)	2 2 2 2 3	Interviews with students Revision/Tests		Uniform Test Inorganic Chemistry
15/12/10 (12)	2 2 2 2 3 2 2 2 2 3 2 2	Revision/Tests		
21/01/11 (13)	2 2	Revision/Tests		Mock Examination